

## TITLE OF THE INVENTION

## RING

## BACKGROUND OF THE INVENTION

## 5 Field of the Invention

The present invention relates to rings represented by fashion rings including wedding rings and initial-engraved rings, and more specifically, to those referred to as "two way rings" .

## 10 Description of the Background Art

In the recent wedding ring market, rings with a diamond fitted into the outer surface and a blue sapphire fitted into the inner surface of their band are commercialized (referred to as the first prior art). These rings have become popular because the tradition that wearing something blue at your wedding will bring you a happy life has come to be widely known, so that it is desirable for women to have a wedding ring with a blue sapphire in it.

From the same viewpoint, rings with a diamond and another stone such as a blue sapphire near the diamond on the outer surface of their band have been introduced to the jewelry market (referred to as the second prior art).

20 However, the first prior art has a problem that the blue sapphire is not seen while the ring is worn. It must be more desirable for women that the blue sapphire is also seen, and the first prior art does not match the psychology of women. As another problem, the first prior art does not satisfy wearers' demands to use a diamond or a blue sapphire in accordance with their moods.

25 On the other hand, the second prior art does not have the drawback that the

blue sapphire is not seen; however, the same as the first prior art, it fails to meet the wearers' demands to use the diamond or the blue sapphire to suit the occasion.

These problems are not only true of wedding rings, but also for other fashion rings.

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## SUMMARY OF THE INVENTION

The first aspect of the present invention is directed to a ring comprising a band consisting essentially of a first portion, a second portion facing the first portion, and a third portion and a fourth portion each being between the first portion and the second portion, the first portion having a first ditch portion formed from an outer surface thereof toward an inside thereof, the second portion having a second ditch portion formed from the outer surface thereof toward the inside thereof, the first ditch portion and the second ditch portion facing each other; a first stone fitted into the first ditch portion and a second stone which differs in material from the first stone and is fitted into the second ditch portion, wherein an exposed outer surface of the first stone does not jut from the first ditch portion, an exposed outer surface of the second stone does not jut from the second ditch portion, and the third portion and the fourth portion do not have any ditch portion and any stone arranged therein.

The second aspect of the present invention is directed to a ring comprising a band consisting essentially of a first portion, a second portion facing the first portion, and a third portion and a fourth portion each being between the first portion and the second portion, the first portion having a first ditch portion formed from an outer surface thereof toward the inside thereof, the second portion having a plurality of second ditch portions formed from the outer surface thereof toward the inside thereof and arranged separately from each other along the outer surface of the second

portion; and a stone fitted into the first ditch portion, wherein an exposed outer surface of the stone does not jut from the first ditch portion, the plurality of second ditch portions form a person's initials recognized when the plurality of second ditch portions are seen from above, and the third portion and the fourth portion do not have  
5 any ditch portion and any stone arranged therein.

The present invention has been contrived in order to overcome these problems, and has an object of providing a ring which can be used in two different manners and has such a structure as not to make the wearer feel a sense of incongruity while she wears it.

10 These and other objects, features, aspects and advantages of the present invention will become more apparent from the following detailed description of the present invention when taken in conjunction with the accompanying drawings.

#### BRIEF DESCRIPTION OF THE DRAWINGS

15 Fig. 1 is the vertical cross sectional view of the ring of a first preferred embodiment of the present invention;

Fig. 2 is a plane view of the ring shown in Fig. 1 when the ring is seen from the first direction;

20 Fig. 3 is a plane view of the ring shown in Fig. 1 when the ring is seen from the second direction;

Fig. 4 is a plane view of the back of the hand when the ring shown in Fig. 1 is put on the ring finger of the left hand according to the first usage pattern;

Fig. 5 is a plane view of the back of the hand when the ring shown in Fig. 1 is put on the ring finger of the left hand according to the second usage pattern;

25 Fig. 6 is the vertical cross sectional view of the ring of a second preferred

embodiment of the present invention; and

Fig. 7 is a plane view of the ring shown in Fig. 6 when the ring is seen from the second direction.

## 5 DESCRIPTION OF THE PREFERRED EMBODIMENTS

### (First Preferred Embodiment)

Fig. 1 is a schematic vertical cross sectional view of the ring 10 of the present preferred embodiment, and Figs. 2 and 3 are the plane views of the ring 10 when the ring 10 is seen from a first direction D1 and a second direction D2, respectively, indicated in Fig. 1. An inventor of the present invention refers to the ring 10 having the structure shown in Figs. 1 through 3 as a "two way ring". The structure of the ring 10 will be described as follows with reference to Figs. 1 through 3.

The ring 10 is roughly composed of a band 1, a first stone 4 such as a diamond, and a second stone 5 such as a blue sapphire, which differs in material from the first stone 4.

The band 1 is a main body of the ring having an outer surface 6 and an inner surface 7 having a common curvature center PO. A first portion P1, which is a part of the band 1, has a first ditch portion, or a first hollow portion 2 formed from the outer surface 6 toward an inside of the inner surface 7. The first ditch portion 2 has such a depth as to fit the first stone 4 thereinto.

The band 1 also has a second portion P2 which entirely faces the first portion P1 with the curvature center PO therebetween, and the second portion P2 has a second ditch portion, or a second hollow portion 3 formed from the outer surface 6 toward an inside of the inner surface 7. Consequently, the bottom surface of the

first ditch portion 2 and the bottom surface of the second ditch portion 3 throughout face each other. The second ditch portion 3 has such a depth as to fit the second stone 5 thereinto. In the present example, a first central axis A1 which connects the center of the bottom surface of the first ditch portion 2 and the curvature center PO and a second central axis A2 which connects the center of the bottom surface of the second ditch portion 3 and the curvature center PO cross each other at an angle  $\theta$  of about  $180^\circ$ .

Between the first portion P1 and the second portion P2 are a third portion P3 and a fourth portion P4 which connect these portions P1 and P2 and have no ditch portions and stones in them. In other words, no ditch portions and stones are arranged on the portions other than the first portion P1 and second portion P2 of the band 1.

The first stone 4 is fitted into and pressed by the first ditch portion 2 so as to be fixed therein. An exposed outer surface 4OS of the first stone 4 does not jut from the first ditch portion 2. In other words, the outer surface 4OS does not jut above a curvature surface (its curvature center is the point PO) which has an edge portion 2E of the first ditch portion 2 as its periphery.

Similarly, the second stone 5 is fitted into and pressed by the second ditch portion 3 so as to be fixed therein. An exposed outer surface 5OS of the second stone 5 does not jut from the second ditch portion 3. In other words, the outer surface 5OS does not jut above a curvature surface (its curvature center is the point PO) which has an edge portion 3E of the second hollow portion 3 as its periphery.

With the above-described structure, when the ring 10 is seen from the first direction D1, the outer surface 4OS of the first stone 4 only is seen as shown in Fig. 2. In contrast, when the ring 10 is seen from the second direction D2, the outer surface

50S of the second stone 5 only is seen as shown in Fig. 3.

Fig. 4 is a plane view of the back of the hand when the ring 10 shown in Figs. 1 through 3 is put on the ring finger of the left hand according to a first usage pattern. In this usage pattern, the wearer and other people can only see the first stone 4 fitted into the outer surface 6 of the band 1, and cannot see the second stone 5 at all. In addition, the second stone 5, which does not jut above the outer surface 6 of the band 1 and is on the palm side (on the other side of the first stone 4) in the first usage pattern, does not come in contact with other parts of the ring finger when the ring finger is folded, and with other parts of the wearer's body. Consequently, the wearer does not feel a sense of incongruity in spite of the presence of the second stone 5 on the palm side, and feels as if she were wearing a ring with only the first stone 4 fitted into the outer surface 6 of the band 1. Furthermore, the wearer can trick other people into seeing as if she were wearing a ring with only the first stone 4 fitted into the outer surface 6 of the band 1.

The following is a description of the second usage pattern of the ring 10, that is, when the wearer rotates the band 1 of the ring 10 approximately half-turn from the first usage pattern as shown in Fig. 4 so that the first stone 4 is on the palm side. The plane view of the back of the hand in the second usage pattern is shown in Fig. 5. As shown in Fig. 5, in the second usage pattern, the wearer and other people can only see the second stone 5 fitted into the outer surface 6 of the band 1, and cannot see the first stone 4 at all. In addition, the first stone 4, which is on the palm side in the second usage pattern and does not jut above the outer surface 6 of the band 1, does not come in contact with other parts of the ring finger when the ring finger is folded, and with other parts of the wearer's body. Consequently, the wearer does not feel a sense of incongruity in spite of the presence of the first stone 4 on the palm side, and

feels as if she were wearing another ring with only the second stone 5 fitted into the outer surface 6 of the band 1. Furthermore, the wearer can trick other people into seeing as if she were wearing another ring with only the second stone 5 fitted into the outer surface 6 of the band 1.

Thus, the ring 10 has the functions: (i) merely rotating the band 1 approximately half-turn provides two kinds of use and (ii) in the first and second usage patterns, the wearer feels no concern for the presence of the stone on the palm side, or can enjoy each usage pattern without feeling a sense of incongruity. Due to these functions, the wearer can free and easily select the respective of the first and the second usage patterns depending on her mood and the wearer can easily select one of the first and second usage patterns depending on her cloth, or the occasion. Furthermore, it is economical that there is no necessity of separately purchasing two rings. In addition, due to the above function (i) of the ring 10, the wearer can trick other people into thinking that she has two different rings in spite of actually having only one ring.

(A Modified Example of First Preferred Embodiment)

(1) In the example shown in Fig. 1, the first portion P1 and the second portion P2, or the first ditch portion 2 and the second ditch portion 3 entirely face each other, however, the first portion P1 and the second portion P2, or the first ditch portion 2 and the second ditch portion 3 could face each other only in parts. It is essential only that the first portion P1 and second portion P2, or the first ditch portion 2 and second ditch portion 3 in the first usage pattern and the second usage pattern are so arranged that the stone on the palm side is unseen from the back of the hand. As long as the stone on the palm side is unseen from the back of the hand in the first

usage pattern or the second usage pattern, it is not essential for the first portion P1 and the second portion P2, or the first ditch portion 2 and the second ditch portion 3 to “face each other”.

(2) The vertical cross sections of the first ditch portion 2 and the second ditch portion 3 are not necessarily U-shaped as shown in Fig. 1; the vertical cross sections of the first ditch portion 2 and the second ditch portion 3 could be any shape. For example, the first ditch portion 2 and second ditch portion 3 can be formed so as to make the vertical cross sections of the first ditch portion 2 and the second ditch portion 3 triangular.

(3) It is not necessary that the first portion P1 and the second portion P2 of the band 1 shown in Fig. 1 have the same degree of thickness; the thickness of each of the portions P1 and P2 has only to be set at a value which allows the formation of the corresponding ditch portion.

(4) It is not necessary that the outer surface 6 and the inner surface 7 of the band 1 shown in Fig. 1 have the same curvature center, and it is not necessary either that the band 1 have a uniform degree of thickness.

(5) The structure shown in Fig. 1 can be applied to a fashion ring.

(6) In order to fix either one or both of the first stone 4 and the second stone 5, an adhesive can be used.

(7) The first stone 4 and the second stone 5 can be either natural stones or artificial stones.

(8) “The second stone 5, which differs in material from the first stone 4” can be a stone of the same kind and with a different color. For example, the first stone 4 may be a blue sapphire and the second stone 5 may be a light green-yellow sapphire.

As another case, the first stone 4 may be a diamond, and the second stone 5 may be



either a ruby or an emerald.

(Second Preferred Embodiment)

Fig. 6 is a schematic vertical cross sectional view of a ring 20 of the present preferred embodiment. Fig. 7 shows the plane view of the ring 20 when the ring 20 is seen from the second direction D2 as shown in Fig. 6. The plane view of the ring 20 when the ring 20 is seen from the first direction D1 shown in Fig. 6 is identical to Fig. 2. The inventor of the present invention refers to the ring 20 having the structure shown in Figs. 6 and 7 as a "two way ring" or a "two-in-one ring". The structure of the ring 20 will be described as follows with reference to Figs. 6 and 7.

The ring 20 is roughly composed of a band 1A and a stone 9 such as a diamond.

The band 1A is the main body of the ring having an outer surface 6 and an inner surface 7 having a common curvature center PO. The band 1A has a first portion P1 in which a first ditch portion, or a first hollow portion 2 is formed from the outer surface 6 of the first portion P1 toward an inside of the inner surface 7 thereof. The depth of the first ditch portion 2 is so set as to make the stone 9 be just fitted into the first ditch portion 2.

The band 1A also has a second portion P2 which entirely faces the first portion P1, with the curvature center PO therebetween. The second portion P2 has a plurality of second ditch portions, or second hollow portions 8 (81, 82, 83) formed from the outer surface 6 of the second portion P2 toward an inside of the inner surface 7 thereof in such a manner as to be serially arranged separately from each other along the outer surface 6. The second ditch portions 81, 82, and 83 are set to be as deep as or a little shallower than the first ditch portion 2. Thus, the plurality

of second ditch portions 8 (81, 82, 83) are not hallmarks. The bottom surface of the first ditch portion 2 and the bottom surface of each second ditch portion 8 face each other.

As shown in Fig. 7, the plurality of second ditch portions 8 are so formed  
 5 that the wearer's initials are read when the plurality of second ditch portions 8 are seen from above. For example, in Fig. 7, the second ditch portions 81, 82, and 83 form "M", "·", and "K", respectively, of the wearer's initials.

Between the first portion P1 and the second portion P2 are a third portion P3 and a fourth portion P4 which connect these portions P1 and P2 and have no ditch  
 10 portions, initials, and stones in them. In other words, no ditch portions, initials, and stones are arranged on the portions other than the first portion P1 and second portion P2 of the band 1A.

The following is a description of the first usage pattern of the ring 20 having the above structure. The first usage pattern corresponds to Fig. 4. To be more  
 15 specific, in the first usage pattern, the wearer and other people can only see the stone 9 fitted into the band 1A, and cannot see the initials. In addition, the initials, which are on the palm side in the first usage pattern, are merely composed of the plurality of second ditch portions 8, so that even if the initials come in contact with other parts of the ring finger when the ring finger is folded, or with other parts of the wearer's  
 20 body, the wearer does not feel a sense of incongruity at all, and feels as if she were wearing a ring with only the stone 9 fitted into the outer surface 6 of the band 1A. Furthermore, the wearer can trick other people into seeing as if she were wearing a ring with only the stone 9 fitted into the outer surface 6 of the band 1A.

On the other hand, in the second usage pattern where the ring 20 put on a  
 25 finger according to the first usage pattern is rotated half-turn, the wearer and other

people can only see the initials engraved as the ditch portion in the outer surface 6 of the band 1A, and cannot see the stone 9 at all. In addition, the stone 9 which is on the palm side in the second usage pattern and does not jut above the outer surface 6 of the band 1A, does not come in contact with other parts of the ring finger of the left hand when the ring finger is folded, and with other parts of the wearer's body. Consequently, the wearer does not feel a sense of incongruity at all in spite of the presence of the stone 9 on the palm side, and feels as if she were wearing another ring with only the initials composed of the plurality of second ditch portions 8 formed on the outer surface 6 of the band 1A, that is, initial-engraved ring. Furthermore, the wearer can trick other people into seeing as if she were wearing another ring with only the initials engraved as the ditch portion in the outer surface 6 of the band 1A (initial-engraved ring).

Thus, the ring 20 has the functions: (i) merely rotating the band 1A approximately half-turn provides two kinds of use: a wedding ring and an initial-engraved ring and (ii) in the first usage pattern (as a wedding ring) and the second usage pattern (as an initial-engraved ring), respectively, the wearer feels no concern for the presence of the initials or the stone on the palm side, or can enjoy each usage pattern without feeling a sense of incongruity. Due to these functions, the wearer can free and easily, select the respective of the first and the second usage pattern depending on her mood and the wearer can easily select one of the first and second usage patterns depending on her cloth, or the occasion. Furthermore, it is economical that there is no necessity of separately purchasing two rings. In addition, due to the above function (i) of the ring 20, the wearer can trick other people into thinking that she has two different rings in spite of actually having only one ring.

As the stone 9, a sapphire, a ruby, or an emerald can be used instead of a diamond.

The idea of each of the modified examples (1) through (7) of the first preferred embodiment holds true for the modified examples of the present preferred  
5 embodiment (the ideas of the modified examples (6) and (7) of the first preferred embodiment hold true only about the stone 9).

Each ring of the first and second preferred embodiments has the effects: (i) allowing single ring to be used in two different ways and (ii) making the wearer enjoy each usage pattern without a sense of incongruity at all.

10 While the invention has been shown and described in detail, the foregoing description is in all aspects illustrative and not restrictive. It is therefore understood that numerous other modifications and variations can be devised without departing from the scope of the invention.